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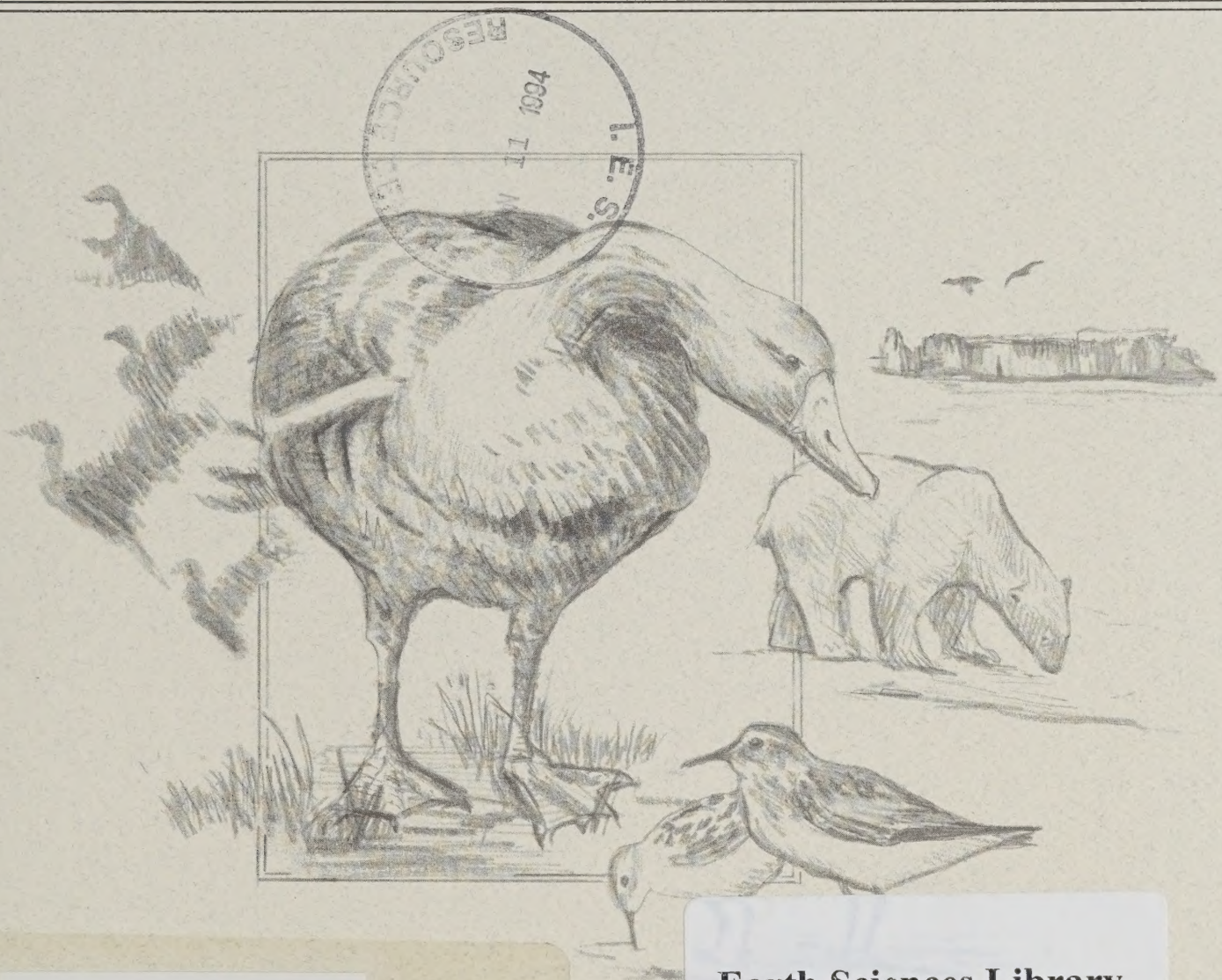
CANADIAN WILDLIFE SERVICE. CURRENT ACTIVITIES IN THE
NORTHWEST TERRITORIES, 1993.

CA1 WS9093 C18

WILDLIFE SERVICE

Current Activities in the Northwest Territories

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CANADIAN WILDLIFE SERVICE
WESTERN AND NORTHERN REGION

Yellowknife, NWT
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CONTENTS

1.	INTRODUCTION	2
2.	CWS ROLES AND RESPONSIBILITIES	3
	Migratory Birds Convention Act	3
	Canada Wildlife Act.....	3
	Wild Animal and Plant Protection Act	3
	International issues	3
	National Issues	3
3.	NORTHERN INITIATIVES	3
	Land Claims	3
	Northern Oil and Gas Development	3
	Mining.....	3
	Arctic Goose Joint Venture	4
	Green Plan.....	4
	Arctic Environmental Strategy	4
4.	CANADIAN WILDLIFE SERVICE ACTIVITIES AND PROGRAMS	4
	LAND CLAIMS	4
	MIGRATORY BIRDS	5
	Geese and Swans	5
	Ducks	7
	Shorebirds	8
	Seabirds	9
	Forest Birds	9
	ENDANGERED SPECIES	9
	Polar Bear	9
	Peary Caribou	10
	Wood Bison	10
	Whooping Crane	10
	HABITAT	10
	CONTAMINANTS	12
	CLIMATE CHANGE	12
	ENVIRONMENTAL ASSESSMENT	13
	ENFORCEMENT.....	13
5.	FIGURES	
	Figure 1. Land Claim Areas in the NWT.....	14
	Figure 2. Location of field projects in the NWT.....	15
6.	DIRECTORIES	
	Directory of Canadian Wildlife Service Northern Expertise.....	16
	Directory of Canadian Wildlife Service Offices.	16

INTRODUCTION

Although the Canadian Wildlife Service (CWS) has conducted wildlife research in the Northwest Territories (NWT) for over 40 years, the total CWS effort dedicated to northern wildlife issues is often not apparent. Northern expertise is widely distributed throughout the Service, and projects are undertaken from Yellowknife, Edmonton, Saskatoon, Winnipeg, Ottawa, Ste. Foy, and Dartmouth.

The Northern Conservation Branch in Yellowknife is part of the Western and Northern Administrative Region, and coordinates programs in the NWT.

This brochure provides an overview of NWT-related programs and projects and is a directory of CWS northern expertise. Comments on the content and utility of this document would be welcomed and may be directed to:

Chief
Northern Conservation Branch
Canadian Wildlife Service
Box 637
Yellowknife, NWT
Tel: (403) 920-8531



ACRONYMS USED IN THE TEXT

AES	Arctic Environmental Strategy	MBCA	Migratory Birds Convention Act
AGJV	Arctic Goose Joint Venture	NAWMP	North American Waterfowl Management Plan
COSEWIC	Committee on the Status of Endangered Wildlife in Canada	NFA	Nunavut Final Agreement
CWA	Canada Wildlife Act	NOGAP	Northern Oil and Gas Action Program
CWS	Canadian Wildlife Service	NSERC	Natural Sciences and Environment Research Council
EARP	Environmental Assessment and Review Process	NWA	National Wildlife Area
DUC	Ducks Unlimited Canada	NWMB	Nunavut Wildlife Management Board
GFA	Gwich'in Final Agreement	NWT	Northwest Territories
GNWT	Government of the Northwest Territories	PCSP	Polar Continental Shelf Project
HTA	Hunters' and Trappers' Association	USFWS	United States Fish and Wildlife Service
HTC	Hunters' and Trappers' Committee	WAPPA	Wild Animal and Plant Protection Act
IFA	Inuvialuit Final Agreement	W&NR	Western and Northern Region (of CWS)
INAC	Indian and Northern Affairs Canada	WBNP	Wood Buffalo National Park
ISR	Inuvialuit Settlement Region	WHC	Wildlife Habitat Canada
		WWF	World Wildlife Fund

CWS ROLES AND RESPONSIBILITIES

CWS is responsible for management of wildlife in the national interest. Its roles and responsibilities derive from the following legislation:

MIGRATORY BIRDS CONVENTION ACT (MBCA)

Under this act, CWS is responsible for the conservation and management of migratory birds in Canada and administers the **Migratory Birds Regulations** which govern hunting and possession of migratory birds. The **Migratory Bird Sanctuary Regulations** permit CWS to establish and manage bird sanctuaries. As of 1992, there were 101 Migratory Bird Sanctuaries in Canada.

CANADA WILDLIFE ACT (CWA)

This act enables CWS to protect wildlife species in danger of extinction and to acquire lands for wildlife conservation, research and interpretation. These lands, known as National Wildlife Areas, are managed in accordance with the **Wildlife Area Regulations**.

WILD ANIMAL AND PLANT PROTECTION ACT (WAPPA)

In cooperation with the provinces and territories, CWS may control or prohibit import into Canada, export from Canada, or transport between provinces of any wild animal or plant in whole or in part.

INTERNATIONAL ISSUES

CWS is responsible for Canadian participation in international wildlife issues such as the **International Polar Bear Agreement**, the **Ramsar Convention on Wetlands of International Importance**, and the **Circumpolar Agreement on the Conservation of Arctic Flora and Fauna**. CWS plays a major role in the international management of migratory birds through the **North American Waterfowl Management Plan (NAWMP)**, the **Flyway Councils**, **Western Hemispheric Shorebird Reserve Network**, and other cooperative efforts.

NATIONAL ISSUES

CWS addresses all domestic interjurisdictional wildlife issues. For example, CWS provides a secretariat for the **Committee on the Status of Endangered Wildlife in Canada (COSEWIC)** and participates on the **Beverly/Kaministiquia Caribou Management Board** and the **Polar Bear Technical and Management Committees**.

NORTHERN INITIATIVES

In addition to ongoing roles and responsibilities, CWS programs respond to a number of northern issues.

LAND CLAIMS

Virtually all of the NWT is subject to comprehensive land claims by aboriginal peoples (Figure 1). The Inuvialuit Final Agreement (IFA) was concluded in 1984, the Nunavut Final Agreement (NFA) was passed by Parliament in 1993, and other claims are at various stages of completion. CWS participates in main table and land selection negotiations in order to address wildlife and habitat issues and to establish cooperative management systems. CWS also implements various legal and administrative obligations arising from the completed land claims and is a member of the Wildlife Management Boards that deal with wildlife issues on an ongoing basis.

NORTHERN OIL AND GAS DEVELOPMENT

Northern Oil And Gas Action Program (NOGAP) is a cooperative federal and territorial program intended to research and plan for hydrocarbon development in the North. NOGAP funds assist departments in acquiring the knowledge and capability to assess and mitigate environmental impacts. The program, started in 1986, focuses on the Beaufort Sea and will be completed in 1994.

MINING

The **Northern Mineral Policy**, released in December 1986, addresses the mining industry's concern with access to land for exploration and development. The policy states that "the federal government will review the boundaries of the [NWT] bird sanctuaries [north of 60° N] to ensure that the lands they contain are necessary to achieve the conservation objectives for which they were established." The review was completed in 1990 and a number of follow-up projects are presently under way.

ARCTIC GOOSE JOINT VENTURE (AGJV)

The AGJV, a component of the North American Waterfowl Management Plan, is intended to integrate goose research and monitoring programs and improve the management of arctic geese. The AGJV identifies research priorities and funding requirements, reviews proposals, and communicates program results. The Venture includes representatives from the Canadian and U.S. federal, provincial, territorial and state governments, four flyway councils and non-government groups.

GREEN PLAN

The Green Plan is a six-year, three billion dollar federal initiative to deal with the priority environmental issues affecting Canada. Green Plan commitments relating to the NWT include: assessment of health risks posed by the consumption of country foods, regulation of toxic substances, reduction of hazardous wastes, protection of unique ecological areas, improved environmental reporting, new Environmental Assessment legislation, and improved management of wildlife.

ARCTIC ENVIRONMENTAL STRATEGY (AES)

A component of the Green Plan, the Arctic Environmental Strategy consists of four initiatives:

1. Research on the sources and movements of contaminants will assist in evaluating risks to human health.
2. All hazardous wastes on Crown lands will be removed and non-hazardous wastes near communities will be cleaned up.
3. The network of water quality stations will be expanded to improve assessment capabilities
4. The government will assist communities in developing and implementing strategies to meet their economic and environmental objectives.



CANADIAN WILDLIFE SERVICE ACTIVITIES AND PROGRAMS

LAND CLAIMS

1) Inuvialuit Final Agreement (IFA).

Signed in 1984, this was the first comprehensive land claim in the NWT. Completion of all one-time biological resource-related studies for which CWS is responsible (see following project list) will be completed by 1994. CWS also contributes to the Inuvialuit Harvest Study which documents the extent of subsistence harvest within the Inuvialuit Settlement Region (ISR). CWS is represented on the Wildlife Management Advisory Council which deals with all significant wildlife issues relating to the ISR.

Duration: Ongoing
Contact: Kevin McCormick

2) Gwich'in Final Agreement.

The Gwich'in Final Agreement was signed in 1992. During the next ten years CWS will address obligations arising from the claim. CWS is a member of the Renewable Resources Board which deals with all significant wildlife issues relating to the Gwich'in Settlement Area.

Duration: Ongoing
Contact: Kevin McCormick

3) Nunavut Final Agreement.

The Nunavut Final Agreement was completed in 1993. Although implementation of the claim begins in 1993, full implementation and the establishment of the Nunavut government will take an indefinite number of years. CWS is a participant on the Nunavut Wildlife Management Board (NWMB) which will also be established in 1993. The NWMB will deal with all significant wildlife issues relating to the Nunavut Settlement Area.

Duration: Ongoing
Contact: Kevin McCormick

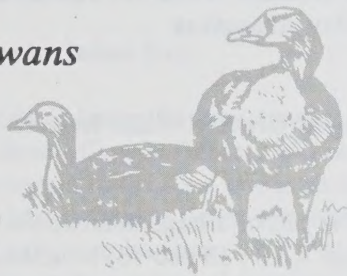
4) Sahtu Land Claim.

Main-table and land selection negotiations respecting this claim should be completed in 1993. CWS will participate in all phases of the negotiations and implementation as required.

Duration: Ongoing
Contact: Kevin McCormick

MIGRATORY BIRDS

Geese and Swans



5) Arctic Goose Joint Venture (AGJV) Coordinating Office.

CWS maintains the Coordinating Office for the AGJV. The office, located in Edmonton, receives project proposals and ensures that there is effective liaison between the AGJV Technical Committee and Management Board, all participating partners, and other interested parties.

Duration: Ongoing
Partners: Governments of NWT, Manitoba, Saskatchewan and Alberta, DUC, WHC, USFWS, US State Governments
Contact: Paul Gregoire

6) Distribution, Abundance and Productivity of White-fronted Geese in the Inuvialuit Settlement Region.

The ISR is an important breeding area for the mid-continent population of White-fronted Geese. Aerial surveys are undertaken to determine the number of birds present and to define important breeding and moulting areas. The distribution and abundance of Tundra Swans, Canada Geese and other highly visible species are assessed during these surveys. The Inuvialuit are guaranteed preferential access to these birds, and this project will produce an estimate of the total allowable harvest of White-fronted Geese from the ISR.

Duration: 1989 to 1994
Partners: IFA, PCSP, AGJV
Contact: Jim Hines

7) Fall and Winter Distribution and Survival of Greater White-fronted Geese from the Inuvialuit Settlement Region.

The fall and winter distribution and annual survival of White-fronted geese hatched in the ISR are poorly understood. The geese are banded and collared on breeding grounds, and band recoveries and observations of collared birds are made at fall staging areas and on wintering grounds. Information on survival rates and distribution will help determine the total allowable harvest of White-fronted Geese from the ISR.

Duration: 1990 to 1995
Partners: IFA, PCSP, AGJV
Contact: Jim Hines

8) Populations and Habitats of Pacific Brant on Banks Island.

Pacific Brant are especially vulnerable to disturbance, oil spills and over-harvest because of their small population size, colonial nature and coastal habits. Banks Island is likely the most important breeding area for this species in the western Arctic. Aerial surveys provide baseline information on bird distribution, abundance, and key habitat areas. A large sample of Brant is being banded to obtain information on migration routes, wintering areas, productivity, and mortality. A network of observers in Canada and the U.S. monitor the marked birds.

Duration: 1992 to 1994
Partners: IFA, AGJV, USFWS
Contact: Jim Hines

9) Population Size and Productivity of Brant at Anderson River Delta Bird Sanctuary.

The Anderson River Delta Bird Sanctuary supports the largest known breeding colony of Black or Pacific Brant in the Canadian Arctic. However, the colony has apparently declined from 1500 or more nests in the 1960's to fewer than 500 nests in 1991. Although the cause of the decline is unknown, evidence from 1991 suggests that nest success has been very poor. The assessment of gull predation on survival of brant eggs and chicks will provide important information for management of this population. The study also evaluates productivity of the snow goose population at Anderson River.

Duration: 1991 to 1994
Partners: University of Saskatchewan, PCSP
Contact: Terry Armstrong, Department of Biology, University of Saskatchewan; Jim Hines

10) Population Biology of Central Arctic Geese.

The number of central Arctic Ross' Geese and Lesser Snow Geese has increased significantly in recent years. However, basic information such as age at first reproduction, annual variation in clutch size, and production of goslings is unknown. This study examines the connection between habitat use, nutrition, spring weather, nesting success, and brood survival in Ross' Geese. Productivity and survival rates are used to examine events during the annual cycle that most likely influence changes in population size.

Duration: 1991 to 1994
Partners: AGJV, PCSP
Contact: Ray Alisauskas

11) Effect of Habitat Degradation on Growth and Survival of Ross' and Lesser Snow Goose Goslings in the Queen Maud Gulf Bird Sanctuary.

The AGJV has identified habitat destruction by geese as a problem, but the impact of over-grazing on goose productivity is presently unknown. Lack of food may restrict gosling development and increase mortality. This study will consider the relationship between habitat quality and gosling growth and survival.

Duration: 1991 to 1994
Partners: AGJV, PCSP, DUC, INAC, GNWT, University of Saskatchewan, State of California, Pacific Flyway Council, California Waterfowl Association
Contact: Ray Alisauskas

12) Effect of Neckbands on the Survival of Greater White-fronted Geese from Queen Maud Gulf Bird Sanctuary.

Coded neckbands, used in many AGJV studies, are a valuable tool for determining the distribution, movements, and survival of geese. However, they are suspected of being responsible for a certain amount of mortality in some species. Each year of this study, approximately 1000 White-fronted Geese are being banded and collared while a similar number receive only bands. Differences in mortality between the two groups will be determined on the basis of bands and/or collars returned from hunter-killed birds.

Duration: 1991 to 1996
Partners: AGJV, DUC, GNWT, INAC, PCSP
Contact: Ray Alisauskas

13) Distribution and Abundance of Geese in the Queen Maud Gulf Bird Sanctuary.

Aerial surveys will be conducted to determine in detail the nesting distribution of White-fronted Geese, Canada Geese and Brant in the sanctuary. This survey is prerequisite for further studies on the ecology of these species. Review of the sanctuary boundaries, recommended through the Northern Mineral Policy Review, will be based on this project and the habitat inventory project (No. 42).

Duration: 1991 to 1996
Partners: GNWT, PCSP, DUC, University of Saskatchewan, State of California, INAC, California Waterfowl Association
Contact: Ray Alisauskas

14) Banding of Greater White-fronted Geese at Inglis River.

This project is part of a large international effort (including Projects 6 and 7, 12, 13 and 18) to delineate the migration routes and wintering areas of White-fronted geese. Initial surveys indicate that about 15% of the eastern mid-continent population of White-fronted Geese nest and moult in the Inglis River area. This project will ensure that geese are banded and collared at the extreme northeastern edge of their breeding range.

Duration: 1991 to 1993
Partners: GNWT, DUC, PCSP
Contact: Richard Kerbes

15) Distribution and Survival of Eastern Arctic Canada Geese.

The AGJV has made the study of Small Canada Geese a priority due to the lack of information on their population status and survival. Historical data are poor and populations appear to be shifting their migration and wintering areas. Canada Geese nesting and moulting along the west coast of Hudson Bay, on Southampton Island, and on Baffin Island will be banded and collared. Marked birds will be monitored during their migration and on their wintering areas to determine their distribution and survival.

Duration: 1991 to 1994
Partners: AGJV, GNWT, USFWS, PCSP, Government of Manitoba, Central and Mississippi Flyway Councils, Wildlife Management Institute
Contact: Dale Caswell

16) Greater Snow Goose Feeding Ecology and Habitat Relationships on Bylot Island.

Greater Snow Geese have reached record numbers in recent years and continue to increase. High densities of geese could lead to habitat degradation on Bylot Island which supports a major portion of this population. This study will consider how feeding activity affects the quality of habitat and how habitat quality (and other factors) influence goose productivity.

Duration: 1991 to 1994
Partners: AGJV, PCSP, Université Laval
Contact: Austin Reed

17) Goose Studies in James Bay.

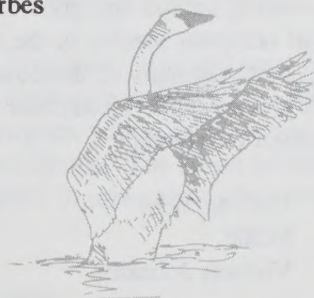
The coastal wetlands of James Bay are a major staging area for Atlantic Brant, Canada Geese, and Lesser Snow Geese, species important to the Cree and Inuit hunters of northern Quebec. Many Canada Geese also nest and rear young in nearby freshwater marshes. This study will provide information on the ecological requirements of the geese during their staging and breeding periods in order to assess, predict and mitigate impacts from development activities.

Duration: 1991 to 1994
Partners: AGJV, James Bay Energy Corporation, Groupe Environment, Shooner, Eeyou Corporation
Contact: Austin Reed

18) Coordination of the Monitoring of Arctic Geese.

The primary objective of this AGJV project is to delineate the migration pathways and wintering areas of White-fronted Geese, Snow Geese, Ross' Geese and Canada Geese. In a large international project, these species are banded and collared on their breeding grounds in arctic Canada and Alaska. A network of observers in Canada, U.S. and Mexico monitor the collared birds throughout their migration. Observations are compiled in a common data base at the CWS office in Saskatoon.

Duration: Ongoing
Partners: AGJV, DUC, IFA
Contact: Richard Kerbes



Ducks



19) Productivity of Boreal Forest Duck Populations.

The boreal forest covers one-third of Canada and supports an estimated 25-50% of the continent's breeding ducks. With the loss of wetland habitat on the prairies, the boreal forest has become increasingly important for North American waterfowl. CWS is conducting a long-term study near Yellowknife, which will:

- 1) document long-term population trends and productivity of waterfowl in the boreal forest;
- 2) determine habitat preferences and requirements;
- 3) compare the results to those obtained 25 years previously on the same study site and to similar data from the prairie pothole region.

In conjunction with this study, CWS is investigating waterfowl populations using the North Arm of Great Slave Lake during migration, nesting, and moulting periods. A study of the population ecology of horned grebes is also being undertaken.

Duration: 1985 to 1995
Partners: Science Institute of NWT, DUC, DIAND, IWD
Contact: Michael Fournier; Jim Hines

20) Spring Migration of Birds along Offshore Leads in the Beaufort Sea.

Hundreds of thousands of King Eiders, Common Eiders, Oldsquaw, Glaucous Gulls and other birds migrate through the southern Beaufort Sea en route to their breeding grounds in the western Arctic. The birds depend on a system of leads (open water) which provide them with feeding and resting habitat. This study will determine the temporal and spatial distribution of migrating birds in relation to ice formations and will be used to predict the location of spring bird concentrations. Oil and gas exploration in this region has raised concerns about the consequences of an oil spill or blowout. This study will aid in assessing the risks to migrating birds and will be used in the development of appropriate contingency plans.

Duration: 1992 to 1993
Partners: NOGAP
Contact: Lynne Dickson

21) Abundance and Productivity of King Eiders on western Victoria Island.

The status and population size of King Eiders in the western Arctic is not well known. This study will produce an estimate of the abundance and productivity of King Eiders in the ISR and will identify important habitat areas. The Inuvialuit are guaranteed preferential hunting rights to these birds and this study will provide baseline information for establishing a total allowable harvest and for future monitoring programs.

Duration: 1992 to 1993
Partners: IFA, DUC
Contact: Lynne Dickson

22) Traditional Knowledge of Ducks and Geese in the Inuvialuit Settlement Region.

The Inuvialuit and other northern people have an intimate knowledge of the wildlife within their traditional hunting areas. CWS is gathering information from hunters in Sachs Harbour and Holman to complement projects on Brant and Eiders which are being conducted in the ISR. Hunters in each community are being interviewed regarding the distribution, abundance, and biology of eiders and geese in the surrounding area. This information is used to identify key habitat sites, focus aerial surveys on important areas, and to enhance our understanding of these species in the western Arctic.

Duration: 1991 to 1993
Partners: IFA, Holman HTC, Sachs Harbour HTC
Contact: Jim Hines

Shorebirds



23) Distribution and Abundance of Shorebirds in the Mackenzie Delta.

Aerial and ground surveys of breeding and migrating shorebirds are being conducted in the Mackenzie Delta to determine the density of shorebirds in different habitats and to identify the most important breeding and staging sites. Information from this project and project No. 41 will be used to evaluate the boundaries of Kendall Island Bird Sanctuary as recommended by the Northern Mineral Policy Review. This information will also be used by CWS when making decisions regarding the impact of oil and gas development in the area.

Duration: 1991 to 1994
Partners: NOGAP, PCSP
Contact: Cheri Gratto-Trevor

24) Key Habitat Sites for Shorebirds in Foxe Basin.

The Foxe Basin is largely composed of low-lying habitat that is favoured by arctic-breeding shorebirds. In the past, it has been difficult to adequately census large areas like the Foxe Basin for breeding shorebirds. This study proposes to refine the use of satellite imagery for predicting and delineating areas of optimal shorebird habitat. Such a system would allow the Western Shorebird Hemispheric Reserve Network to be extended to breeding areas in arctic Canada. The study will also identify potential Key Migratory Bird Habitat Sites for shorebirds.

Duration: 1986 to 1994
Partners: Canada Centre for Remote Sensing, PCSP, Science Institute of the NWT, University of Guelph
Contact: Guy Morrison

25) Ecology and Eco-energetics of High-arctic Shorebirds.

Shorebirds undertake strenuous, lengthy migrations every year from high-arctic Canada to Europe, West Africa, and the lower Americas. During the breeding season they cope with cold temperatures and varying weather conditions. Investigation of the energy budgets of these shorebirds during their annual cycle provides an understanding of how and where shorebirds manage to accumulate the energy reserves necessary for their demanding lifestyle. It will also help to predict how climate change may affect arctic shorebirds' ability to complete their migrations.

Duration: Ongoing
Partners: University of Groningen (The Netherlands), Netherlands Institute for Sea Research, Joint Nature Conservation Committee (U.K.), Canadian Department of National Defence
Contact: Guy Morrison

26) Shorebird Habitat Survey in the Rasmussen Lowlands.

The Rasmussen Basin is reputed to be an area extremely rich in breeding and staging shorebirds. However, data on shorebird distribution, density and population parameters are scant. This study will delineate areas of prime shorebird nesting habitat and generate population estimates for the most common species in the area. It will also verify the appropriateness of the boundary drawn around the Key Migratory Bird Habitat Site that includes most of the Rasmussen Lowlands.

Duration: 1993 to 1996
Partners: PCSP
Contact: Victoria Johnston

Seabirds



27) Population Dynamics of Thick-billed Murres.

Thick-billed Murres are the second most-hunted migratory bird in Canada. In addition to hunting, substantial mortality occurs due to oiling and drowning in gill nets. Recent information suggests that some breeding colonies in the eastern Arctic may have declined by 30% over the past few decades. The present harvest may be more than existing populations can sustain. This study will increase the knowledge of the population dynamics of Thick-billed Murres so that more effective management strategies may be formulated.

Duration: 1984 to 1993

Partners: PCSP, University of Ottawa, UBC, Science Institute of the NWT, DIAND

Contact: Tony Gaston

28) Eastern Arctic Seabird Population Monitoring.

In the late 1970's and early 1980's, a monitoring system was devised for several eastern arctic seabird colonies. By comparing the populations of study plots over time, we can monitor population increases and/or decreases of selected Thick-billed Murre, Northern Fulmar, and Black-legged Kittiwake colonies. Study plot assessment occurs at five-to-ten year intervals, rotating amongst colonies.

Duration: Ongoing

Partners: PCSP, Science Institute of the NWT

Contact: David Nettleship, Tony Gaston
Gilles Chapdelaine (Ungava Bay colonies)

Forest Birds



29) North American Breeding Bird Survey.

This survey provides long-term trend information on many of the forest birds in the southern NWT. The NWT surveys are part of a larger program which is conducted across Canada and the United States. The future of this survey as a CWS program in NWT is presently under review.

Duration: Ongoing

Contact: Jacques Sirois

ENDANGERED SPECIES

Polar Bear



30) Cooperative Management of Polar Bears.

CWS is responsible for the maintenance of a national data base on mark-recapture information. The information is used to estimate the size and movements of various Polar Bear populations in Canada.

Duration: Ongoing

Partners: Governments of NWT, Manitoba, Yukon, Ontario, Quebec; INAC, WWF

Contact: Ian Stirling

31) Polar Bear Ecology and Behaviour.

This study analyzes the behaviour of undisturbed polar bears, evaluates the significance of polynyas to polar bears, and determines the relative importance of different habitat types to the bears.

Duration: 1991 to 1996

Partners: University of Alberta, PCSP, Fisheries and Oceans Canada

Contact: Ian Stirling

32) Polar Bear Condition, Survival and Reproduction.

The reproductive status and condition of polar bears in western Hudson Bay has been monitored for about 20 years. During that time, the population has changed from being one of the most productive in the world to one in which survival of cubs in the first year of life is now nearly the lowest. Possible explanations include density-dependent effects, changes in the abundance of seals, climatic changes affecting patterns of break-up and freeze-up, and pollution. This study will attempt to identify some of the reasons for the decline in cub survival.

Duration: 1991 to 1996

Partners: Government of Manitoba, University of Alberta, NSERC

Contact: Ian Stirling

33) Population Ecology and Movements of Polar Bears in the Beaufort Sea.

Population ecology and movement studies of polar bears were conducted in the southern Beaufort Sea between 1971 and 1987 and similar studies were conducted in Viscount Melville Sound from 1990-92. Harvest quotas for the Beaufort Sea population were established on the basis of these studies. However, the northeastern Beaufort Sea was never studied completely. This study will clarify the boundary between the Beaufort Sea and Viscount Melville Sound populations.

Duration: 1992 to 1994
Partners: GNWT, IGC, USFWS
Contact: Ian Stirling

Peary Caribou



34) Conservation of Peary Caribou.

Peary caribou, designated a threatened species by COSEWIC, have suffered a significant decline in numbers over the last two decades. Their numbers are extremely low and incapable of sustaining annual harvests at any significant level. Inter-island movements, spring time use of range, and foraging strategies are being studied on Bathurst Island to determine the influence of ice and snow conditions on the survival of this species. Conservation recommendations will be based on the results of this study.

Duration: 1990 to 1994
Partners: GNWT, PCSP
Contact: Frank Miller

Wood Bison



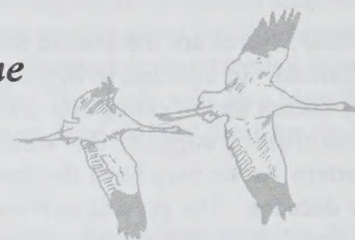
35) Recovery of Wood Bison.

Wood Bison are presently classified as "threatened" by COSEWIC. CWS, in cooperation with provincial and territorial governments, is working to establish a minimum of five free-roaming herds of Wood Bison. There are presently captive herds in Yukon, Alberta, and Manitoba

awaiting reintroduction. The largest free-roaming herd is in the NWT.

Duration: Ongoing
Partners: CPS, Governments of Alberta, Manitoba, Yukon and NWT
Contact: Hal Reynolds

Whooping Crane



36) Ecology of Whooping Cranes.

Annual surveys are undertaken to determine breeding areas in Wood Buffalo National Park, numbers of nests, eggs, and young, and the location of non-breeders. Surplus eggs are transported to captive breeding flocks in the United States for establishing other flocks. CWS also coordinates a monitoring program which documents Whooping Crane staging areas in prairie Canada during migration.

Duration: Ongoing
Partners: USFWS, WBNP, International Crane Foundation, Universities of Alberta and Moscow (Idaho)
Contact: Ernie Kuyt, Brian Johns

HABITAT



37) Management of Protected Areas

CWS manages 17 Bird Sanctuaries and one National Wildlife Area in NWT. Primary activities include the completion of management plans, the review of permit applications and the production of public information. Management plans are being completed for all CWS protected areas in the Nunavut Settlement Region.

Duration: Ongoing
Partners: Local HTA's
Contact: Victoria Johnston

38) Prince Leopold Island Bird Sanctuary.

A significant breeding area for Thick-billed Murres, Black Guillemots, Northern Fulmars and Black-legged Kittiwakes, this sanctuary was officially established in

early 1992. A management plan is being prepared for the sanctuary.

Duration: 1992 to 1993
Partners: Resolute HTA
Contact: Victoria Johnston

39) Coburg Island National Wildlife Area.

The community of Grise Fiord has expressed a strong desire to establish Coburg Island as a NWA, primarily for protection of the island's large nesting populations of Thick-billed Murres, Northern Fulmars and Black-legged Kittiwakes. Consultations with regional organizations and other interests are complete and the proposal is now ready for the regulatory phase of the designation process. The NWA should be established by 1994.

Duration: 1991 to 1994.
Partners: Grise Fiord HTA
Contact: Victoria Johnston

40) Creation of a National Wildlife Area at Isabella Bay.

Isabella Bay on Baffin Island contains critical summer habitat for the endangered eastern arctic population of the Bowhead Whale (COSEWIC ranking). The community of Clyde River proposed the creation of a National Wildlife Area at Isabella Bay to promote conservation of the Bowhead. CWS is assisting the community with designation of the area.

Duration: Ongoing
Partners: Community of Clyde River, INAC, DFO, GNWT
Contact: Victoria Johnston

41) Migratory Bird Populations and Habitats in and near Kendall Island Bird Sanctuary.

This project, which is integrated with project No. 23, will evaluate waterfowl distribution and abundance in and near the present sanctuary. Once the surveys have been completed, the boundaries of the sanctuary will be re-evaluated as recommended Northern Mineral Policy Review. The study will also provide useful information for mitigating the impacts of hydrocarbon developments on bird populations in the MacKenzie Delta.

Duration: 1990 to 1994
Partners: NOGAP, PCSP, IFA
Contact: Jim Hines

42) Habitat Mapping of the Queen Maud Gulf Bird Sanctuary.

The Northern Mineral Policy Review recommended that the Queen Maud Gulf Bird Sanctuary be reduced, subject to a thorough review of its value to migratory birds. A habitat inventory will document the relationship between waterfowl distribution and habitat features within the sanctuary. Another project (No. 13) is assessing the distribution and abundance of all geese in the sanctuary. The distribution of important habitats will help to clarify where and if any boundary revisions are needed.

Duration: 1991 to 1993
Partners: AGJV, DUC
Contact: Andrew Didiuk

43) Distribution and Abundance of Larids on Great Slave Lake.

The purpose of this project is to assess the significance of Great Slave Lake to breeding colonial waterbirds. Field studies are complete, and it appears that the lake has concentrations of breeding gulls and terns that are high relative to the rest of the high boreal ecosystem. The study has also identified two new Key Migratory Bird Habitat Sites. A colony atlas for Great Slave Lake is currently in preparation.

Duration: 1986 to 1993
Contact: Jacques Sirois

44) Creation of New Protected Areas in the Nunavut Settlement Region.

CWS has short-listed nine Key Migratory Bird Habitat Sites in the eastern arctic as being priorities for protected area establishment. Seven of these sites are within the Nunavut Settlement Region, and four of them are listed as potential conservation areas in the Nunavut Final Agreement. CWS is consulting with northern communities and will coordinate the creation of new National Wildlife Areas and Migratory Bird Sanctuaries in the eastern Arctic.

Duration: 1992 to 2002
Partners: local HTA's
Contact: Victoria Johnston

45) Boundary assessment for Bird Sanctuaries in the Nunavut Settlement Region.

The Northern Mineral Policy Review recommended that the boundaries of several Migratory Bird Sanctuaries in Nunavut be changed. It also recommended that one Sanctuary be delisted altogether. CWS will be consulting

local HTA's about possible boundary changes, and will be conducting on-site boundary assessments where necessary. An assessment of Cape Dorset Bird Sanctuary was completed in 1992, and Queen Maud Gulf Bird Sanctuary will be completed in 1993. Evaluations of East Bay, Harry Gibbons, Dewey-Soper, and McConnell River Bird Sanctuaries remain to be done.

Duration: 1991 to 1998
Partners: local HTA's
Contact: Victoria Johnston

CONTAMINANTS

46) Organochlorines in Polar Bears.

Organochlorines are a group of compounds that include many persistent, bioaccumulating chemicals such as PCB's, DDT, and a host of pesticides. Polar bears are liable to accumulate these compounds as they move up through the food chain and into the bears via their prey. The objective of this study is to determine the circumpolar distribution of persistent organochlorine contaminants in Polar Bears and to determine trends for bears in the Canadian Arctic.

Duration: 1991 to 1997
Partners: University of Saskatchewan, Makivik Corporation, GNWT, USFWS, Governments of Greenland, Norway, and Russia, Carleton University, University of British Columbia, Fisheries and Oceans Canada
Contact: Ross Norstrom

47) Dioxin and Furan Residues in Caribou from the Canadian Arctic.

Northern Canadians consume significant amounts of wild or "country" foods. It is important to determine the level of contamination of wild food by airborne pollutants, including dioxins and furans. This study is a continuation of investigation that discovered elevated levels of these compounds in Yukon caribou in 1992.

Duration: 1993 to 1994
Partners: Yukon and NWT governments
Contact: Craig Hebert

48) Effects of Contaminants on Polar Bear Physiology and Ecology.

This project accompanies No. 46. It is important to understand the effects of organochlorine compounds on the

physiology of individual Polar Bears. By determining the effects of these chemicals on individuals, it is possible to predict future population trends. It will also help to identify the potential for exposure of human population to contaminants through ingestion of contaminated wild foods.

Duration: 1991 to 1996
Partners: Yukon and NWT governments
Contact: Ross Norstrom

49) National Survey of Contaminants in Waterfowl - NWT phase.

Waterfowl from breeding grounds in NWT are eaten by people across the continent, and comprise a significant part of the diet of some Northern Canadians. CWS wishes to determine the safety of waterfowl for consumption by creating a database on contaminants in waterfowl. In 1993, sites in the NWT will be sampled, and data will be forwarded to Health and Welfare Canada for human health risk evaluation.

Duration: 1993 to 1994
Partners: GNWT, local HTA's, DIAND, Health and Welfare Canada
Contact: Birgit Braune

50) Contaminants in Arctic seabirds.

Seabirds, by virtue of their position in the food chain, can be used as an indicator of the health of marine ecosystems and of their degree of chemical contamination. There is increasing evidence that arctic biota are exposed to contaminant levels higher than expected. The first part of this project continues the seabird egg contaminant monitoring program that has been in place since the 1970's. The second part of the project involves the collection of seabirds from a variety of sites and trophic levels across the arctic. Carcasses will be analyzed for the presence/concentration of various contaminants.

Duration: 1993
Partners: PCSP, DIAND
Contact: Birgit Braune

CLIMATE CHANGE

51) Impacts of Climate Change on Migratory Birds.

This study will investigate the sensitivity of arctic-nesting waterfowl and shorebirds to variations in weather and climate in their breeding, migration-staging and wintering

areas. The study will identify species, regions and habitats that may be at risk from global warming.

Duration: Ongoing
Partners: Atmospheric Environment Service; National Institute for Ecological Research, Denmark
Contact: Hugh Boyd

ENVIRONMENTAL ASSESSMENT



52) Environmental Review of Development Activities.

CWS reviews over 200 Land Use Permit applications each year. When there is some question over a permit application, the DIAND-chaired Lands Advisory Committee is activated and the permit application is studied in more detail. CWS also has a seat on the Regional Environmental Review Committee (RERC) whose mandate is to evaluate the environmental impacts of proposed developments. Large scale developments on crown land (which includes virtually all of the NWT) are subject to the federal Environmental Assessment and Review Process (EARP) or similar land claim-triggered processes. CWS also participates in these reviews when appropriate.

Duration: Ongoing
Contact: Land Use Permits - Jacques Sirois
RERC - Victoria Johnston
EARP - Kevin McCormick

53) Sea Ducks of McKinley Bay.

The construction of a medium-draft harbour in McKinley Bay to support oil development in the Beaufort Sea has been proposed. To evaluate impacts from development, surveys were conducted in the early 1980's to ascertain the natural annual fluctuation in the numbers of ducks. Although no development has occurred since 1985, the bay is being resurveyed to determine if the original baseline data are still relevant.

Duration: 1990 to 1994
Partners: NOGAP, PCSP
Contact: Lynne Dickson

54) The Red-throated Loon as an Environmental Indicator.

Development of the oil and gas reserves in the Beaufort Sea may have a significant impact on the bird populations in the region. Using the Red-throated Loon as an indicator species, the study will compare the breeding population and productivity of loons before and after development. The first five years of the study have been completed and the results have been analyzed. The next phase of the project will depend on the timing of development.

Duration: 1985 to undetermined end point
Partners: PCSP, INAC
Contact: Lynne Dickson

55) Oil Spill Contingency Plan for NWT.

A contingency plan is being developed which will outline the CWS response to an oil spill in the Arctic.

Duration: 1991 to 1993
Contact: Lynne Dickson

ENFORCEMENT



56) Coordination of Enforcement Activities within NWT.

Because of a large land area and few staff, enforcement of CWS legislation in the NWT is largely undertaken by GNWT Renewable Resource Officers and the RCMP. The CWS Wildlife Enforcement Coordinator for NWT is responsible for ensuring appropriate enforcement of the Migratory Birds Convention Act, the Migratory Bird Sanctuary Regulations, the National Wildlife Area Regulations, the Canada Wildlife Act, the Game Export Act, and the Wild Animal and Plant Protection Act. The Coordinator is also empowered to assist territorial colleagues in enforcing the NWT Wildlife Act.

Duration: Ongoing
Contact: Randy Forsyth

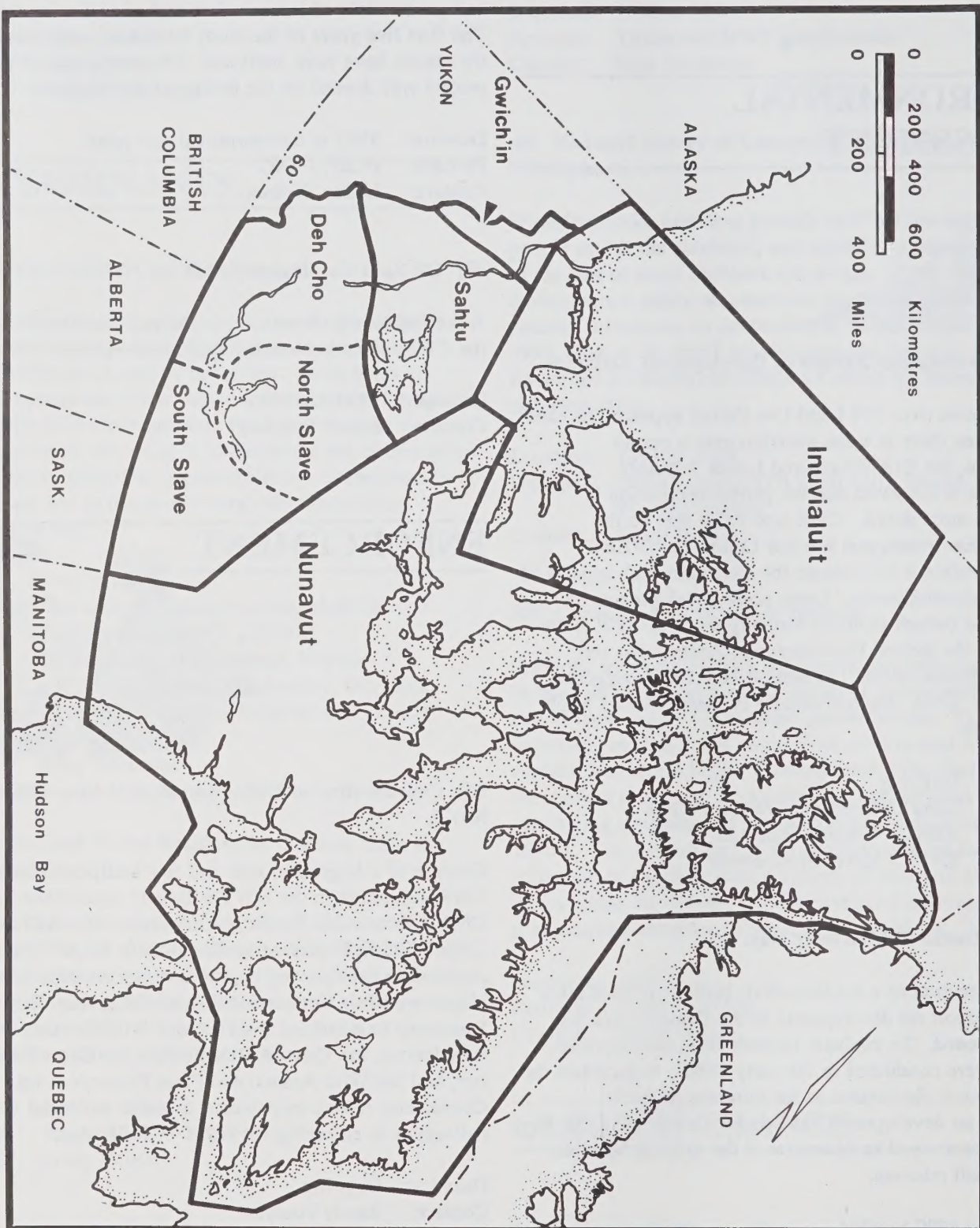


FIGURE 1. Land Claim Areas in the NWT.

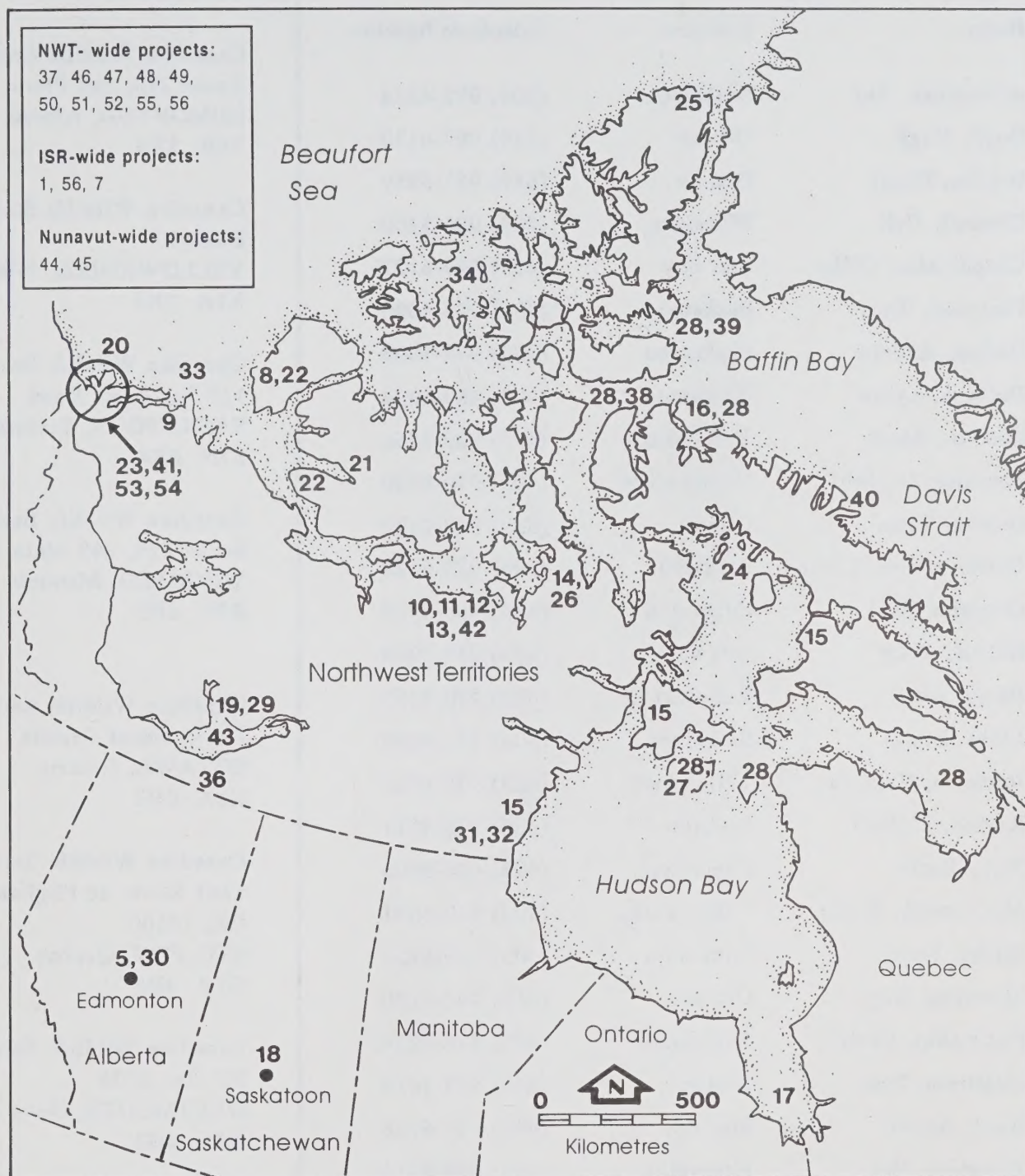


FIGURE 2. Location of field projects in the NWT.

DIRECTORY OF CANADIAN WILDLIFE SERVICE NORTHERN EXPERTISE

Name	Location	Telephone Number
Alisaukas, Ray	Saskatoon	(306) 975-4556
Boyd, Hugh	Ottawa	(819) 997-6130
Braune, Birgit	Ottawa	(819) 953-5959
Caswell, Dale	Winnipeg	(204) 983-5260
Chapdelaine, Gilles	Ste. Foy	(418) 649-6127
Diamond, Tony	Saskatoon	(306) 975-4090
Didiuk, Andrew	Saskatoon	(306) 975-4005
Dickson, Lynne	Edmonton	(403) 469-8924
Forsyth, Randy	Yellowknife	(403) 920-8551
Fournier, Michael	Yellowknife	(403) 920-8530
Gaston, Tony	Ottawa	(819) 997-6121
Gratto-Trevor, Cheri	Saskatoon	(306) 975-6128
Gregoire, Paul	Edmonton	(403) 468-8938
Hebert, Craig	Ottawa	(403) 953-3904
Hines, Jim	Yellowknife	(403) 920-8533
Johns, Brian	Saskatoon	(306) 975-4109
Johnston, Victoria	Yellowknife	(403) 920-6789
Kerbes, Richard	Saskatoon	(306) 975-4111
Kuyt, Ernie	Edmonton	(403) 468-8905
McCormick, Kevin	Yellowknife	(403) 920-8531
Miller, Frank	Edmonton	(403) 468-8927
Morrison, Guy	Ottawa	(819) 997-6120
Nettleship, David	Dartmouth	(902) 426-3274
Norstrom, Ross	Ottawa	(819) 997-1411
Reed, Austin	Ste. Foy	(418) 649-6128
Reynolds, Hal	Edmonton	(403) 468-8918
Sirois, Jacques	Yellowknife	(403) 920-8534
Stirling, Ian	Edmonton	(403) 435-7349

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